

CASE 1137: Humble Oil & Refining Co. applica-
tion to convert State "A" Well #2 into salt w
water disposal well, San Andres Formation

Case No.

1137

Application, Transcript,
Small Exhibits, Etc.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

November 12, 1956

C
O
P
Y

Mr. J. W. House
Humble Oil and Refining Company
P. O. Box 1600
Midland, Texas

Dear Sir:

We enclose a copy of Order R-909 issued on November 7, 1956, by the Oil Conservation Commission in Case 1137, which was heard on September 26, 1956.

Very truly yours,

A. L. Porter, Jr.
Secretary-Director

jb
encs.

HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

August 6, 1956

Amerada Petroleum Corporation
Attn: Mr. R. S. Christi
Box 2040
Tulsa, Oklahoma

Samedan Oil Corporation
V & J Tower Building
Midland, Texas

The Texas Company
Attn: Mr. Levi F. Shiplet
Box 1720
Fort Worth, Texas

Shell Oil Company
Proration Department
Box 1509
Midland, Texas

Ohio Oil Company
Attn: Mr. Coe S. Mills
Box 552
Midland, Texas

Sunray Mid-Continent Oil Company
Attn: Proration Department
Box 941
Midland, Texas

Gulf Oil Corporation
Attn: Mr. B. E. Thompson
Drawer 1290
Fort Worth, Texas

Stanolind Oil & Gas Company
Attn: Mr. Chas. F. Bedford
Oil & Gas Building
Fort Worth, Texas

Anderson-Prichard Oil Corporation
Attn: Mr. Kenneth C. Anderson
Box 1859
Midland, Texas

Tidewater Associated Oil Company
Attn: Proration Department
Box 1231
Midland, Texas

Gentlemen:

By the attached copies of Humble Oil & Refining Company's letter of August 3, 1956, notice is given to the offset lease owners of Humble Oil & Refining Company's application for an order granting permission to convert their New Mexico State A No. 2 well in the Hobbs Pool into a salt water disposal well.

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
R. S. Dewey EXHIBIT No. 1
CASE 11

Yours very truly,

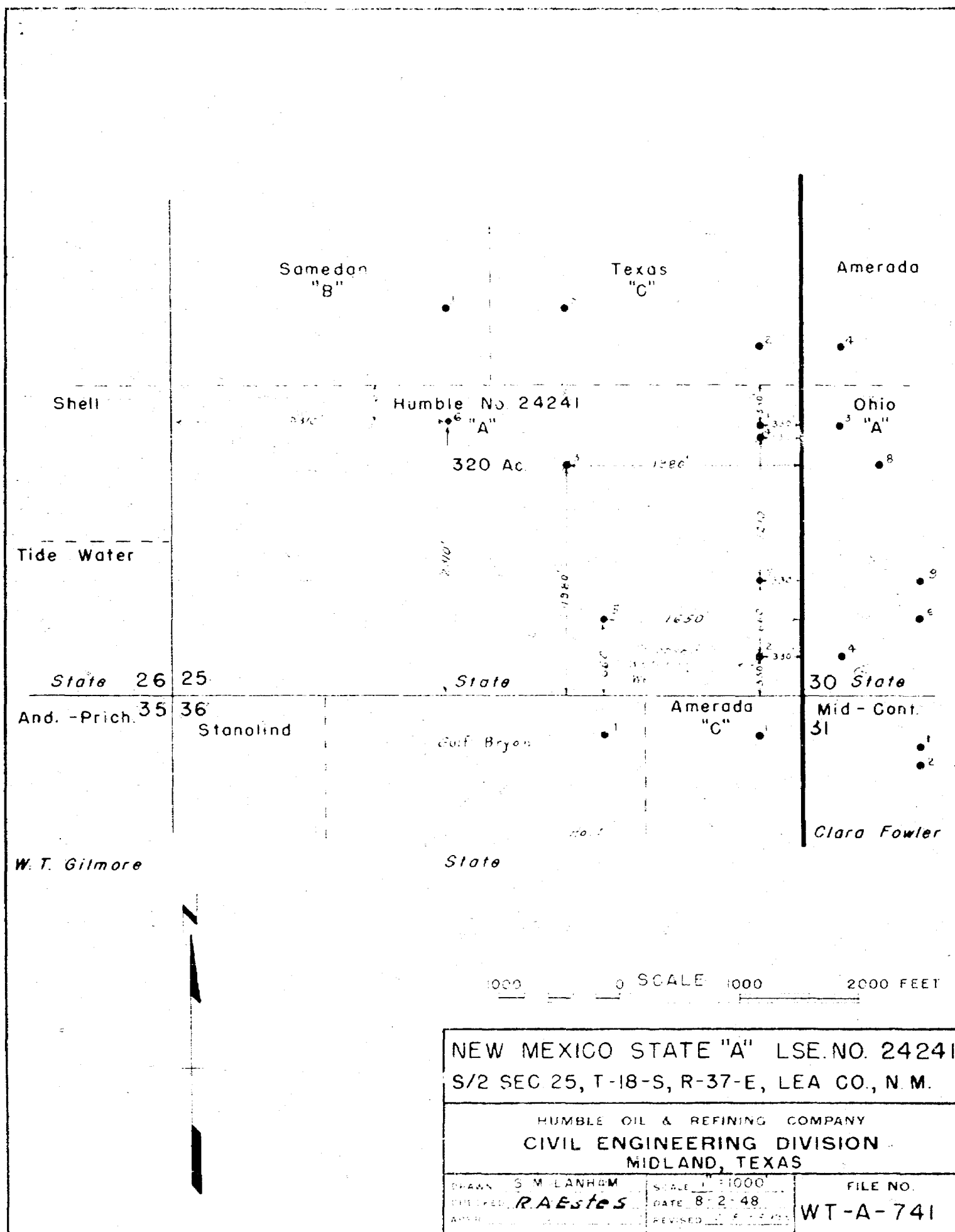
HUMBLE OIL & REFINING COMPANY

J. W. House

R. S. Dewey
By: R. S. Dewey

APPROVED

R. S. Dewey
RSD/jf
Attachment



HUMBLE OIL & REFINING COMPANY
MAIN OFFICE 800 MIDLAND, TEXAS

15 AUG 17 AM 8:05

August 15, 1956

File: 6-1 New Mexico
Re: Hobbs Pool, Salt Water
Disposal

Case 1137

Mr. A. L. Porter
New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Dear Sir:

At an operators' meeting held in Hobbs, New Mexico, August 14, 1956, Stanolind Oil & Gas Company was designated as temporary chairman for the Hobbs Pool Operators Committee.

The Hobbs Pool Operators Committee will hold a meeting on Friday, August 24, 1956, to consider the salt water disposal problem in that pool. Due to this meeting, Humble Oil & Refining Company requests that the hearing set for August 22, 1956, on Case 1137, be postponed to a later date.

Subsequent to the above meeting, Humble Oil & Refining Company will advise the New Mexico Oil Conservation Commission relative to resetting of the hearing on Case 1137.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

J. W. HOUSE

R. S. Dewey
BY: R. S. DEWEY

APPROVED:

[Signature]

RSD/rs

cc: Offset Operators,
(See attached list)

HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

Offset Operators - Hobbs Pool, Lea County, New Mexico

Amerada Petroleum Corporation
Box 2040
Tulsa, Oklahoma
Attention: Mr. R. S. Christie

Anderson Prichard Oil Corporation
Box 1859
Midland, Texas
Attention: Mr. Kenneth C. Anderson

Samedan Oil Corporation
Hobbs, New Mexico

Tidewater Associated Oil Company
Box 1231
Midland, Texas
Attention: Proration Department

The Texas Company
Box 1720
Fort Worth, Texas
Attention: Mr. Levi F. Shiplet

Shell Oil Company
Proration Department
Box 1509
Midland, Texas

Sunray Mid-Continent Oil Company
Box 941
Midland, Texas
Attention: Proration Department

Gulf Oil Corporation
Drawer 1290
Fort Worth, Texas
Attention: Mr. B. E. Thompson

Stanolind Oil & Gas Company
Oil & Gas Building
Fort Worth, Texas
Attention: Mr. Chas. F. Bedford

HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

August 3, 1956

New Mexico Oil Conservation Commission
Box 871
Sante Fe, New Mexico

Gentlemen:

By this letter, Humble Oil & Refining Company makes application for an order granting permission to convert its New Mexico State A Well No. 2 in the Hobbs Pool, Lea County, New Mexico, into a salt water disposal well in accordance with New Mexico Oil Conservation Commission's State-wide Rule 701.

Applicant seeks an order granting permission to re-enter New Mexico State A Well No. 2, located 330 feet from the South line and 330 feet from the East line of Section 25, T-18-S, R-37-E, Lea County, New Mexico, in order to recompleate this abandoned well for the purpose of salt water disposal. This well was plugged after an unsuccessful attempt to reduce the 100% water production from the San Andres formation.

It is proposed to drill out the cement plugs, deepen the well to a new total depth of approximately 4,350 feet, run a full string of 5-1/2 inch casing to total depth and cement same to the surface. The lower part of the casing will be perforated to permit injection of salt water below the oil water contact in the San Andres formation of the Hobbs Pool.

Copies of this application are being mailed to the offset lease owners shown on the accompanying plot.

Request is made for a hearing on this application either in Sante Fe, New Mexico, before the members of the New Mexico Oil Conservation Commission or in Hobbs, New Mexico, before an examiner for the Commission.

Yours very truly,

HUMBLE OIL & REFINING COMPANY

J. W. House

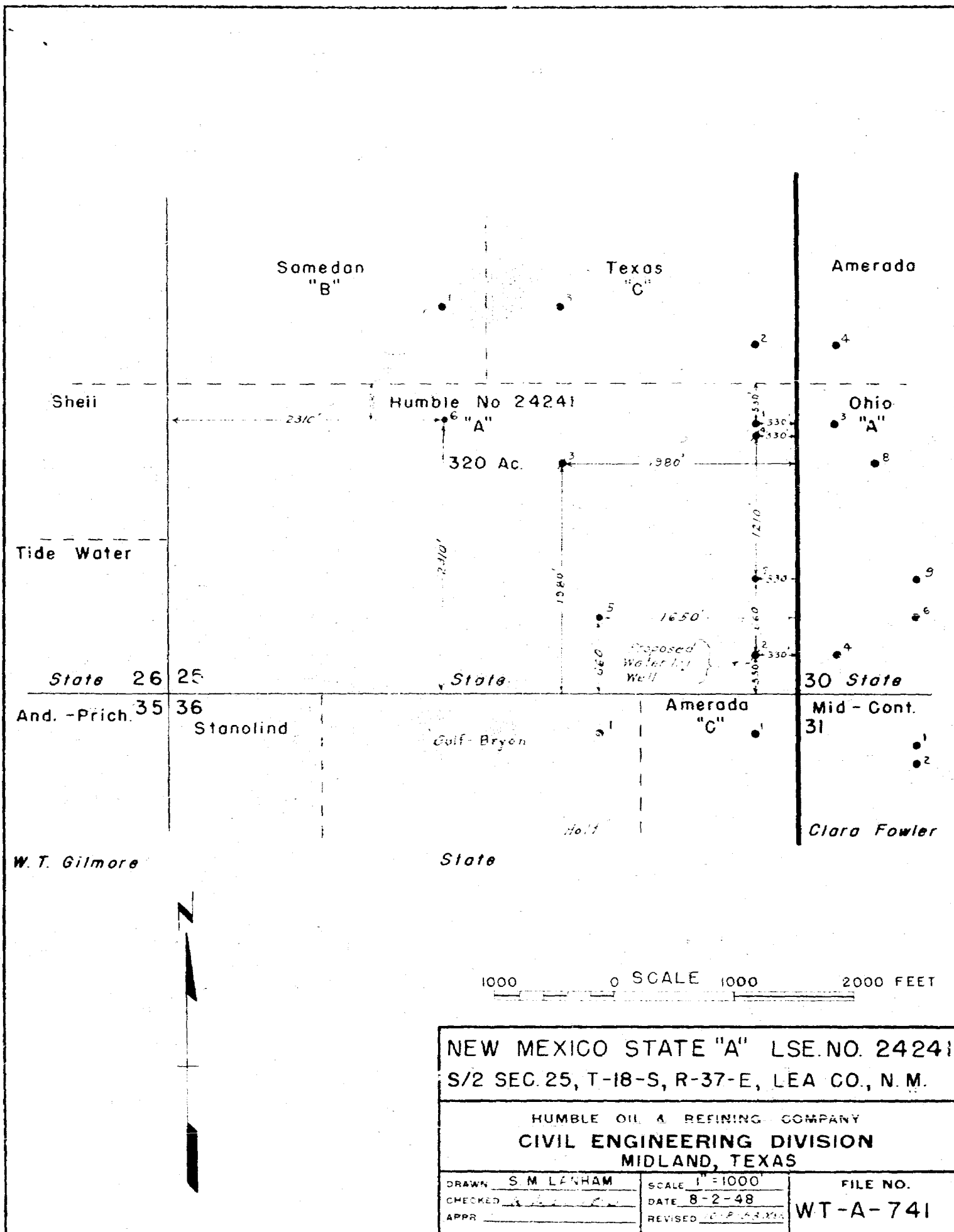
By: R. S. Dewey

APPROVED

RSD/jf
Attachment

Examination before DSN
at Hobbs
8/2/56

Sent copy of Docket to RSD
8/13/56



NEW MEXICO STATE "A" LSE. NO. 24241
S/2 SEC. 25, T-18-S, R-37-E, LEA CO., N. M.

HUMBLE OIL & REFINING COMPANY
CIVIL ENGINEERING DIVISION
MIDLAND, TEXAS

DRAWN S. M. LANHAM	SCALE 1" = 1000'	FILE NO.
CHECKED	DATE 8-2-48	WT-A-741
APPR	REVISED	

BEFORE THE
Oil Conservation Commission
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1137

TRANSCRIPT OF PROCEEDINGS

August 22, 1956

DEARNLEY-MEIER AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO
AUGUST 22, 1956

IN THE MATTER OF: :

CASE NO. 1137: Application of Humble Oil and Refining :
Company for permission to convert its :
State "A" Well No. 2 into a salt water :
disposal well in the San Andres form- :
ation of the Hobbs Pool in accordance :
with New Mexico Oil Conservation Com- :
mission Statewide Rule 701. Applicant :
in the above-styled cause, seeks an :
order granting permission to convert :
its previously abandoned State "A" Well :
No. 2 into a salt water disposal well; :
said well, is located 330 feet from the :
South and East lines of Section 25, :
Township 13 South, Range 37 East, Lea :
County, New Mexico. Applicant proposes :
to inject salt water below the oil-water :
contact of the San Andres formation in :
the Hobbs Pool. :

BEFORE:

Daniel S. Nutter, Examiner.

T R A N S C R I P T O F P R O C E E D I N G S

MR. NUTTER: We will proceed with Case No. 1137. We have
a letter from the Humble Oil and Refining Company.

MR. GURLEY: Is Humble Oil represented here?

(No response)

This letter is dated August 15, 1956, in Re: Hobbs Pool,
Salt Water Disposal. Dear Sir: At an operators' meeting held in
Hobbs, New Mexico, August 14, 1956, Stanolind Oil & Gas Company

was designated as temporary chairman for the Hobbs Pool Operators Committee.

The Hobbs Pool Operators Committee will hold a meeting on Friday, August 24, 1956, to consider the salt water disposal problem in that pool. Due to this meeting, Humble Oil & Refining Company requests that the hearing set for August 22, 1956, on Case 1137, be postponed to a later date.

Subsequent to the above meeting, Humble Oil & Refining Company will advise the New Mexico Oil Conservation Commission relative to resetting of the hearing on Case 1137. Signed by Mr. Dewey.

MR. NUTTER: I talked with Mr. Dewey on the telephone yesterday. He asked that we continue the case until September 26. So, Case No. 1137, without objection, will be continued to September 26, 1956, at Hobbs.

REPORTER'S CERTIFICATE

I, LOUIS R. GUEVARA, do hereby certify that the foregoing and attached Transcript of Proceedings, pages 2 and 3, were reported by me in Stenograph at the time and place aforesaid; that the same was reduced to typewritten transcript by me and contains a true and correct record of said proceedings to the best of my knowledge, skill and ability.

DATED this 27 day of August, 1956, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Louis R. Guevara
LOUIS R. GUEVARA, Court Reporter

MAIN OFFICE 600
HUMBLE OIL & REFINING COMPANY

MIDLAND, TEXAS

SEP 17 11 20
September 21, 1956

J. W. HOUSE

Mr. A. L. Porter
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Sir:

Humble intends to proceed with Case 1137 at the Examiner Hearing in Hobbs on September 26, 1956. Attached hereto is a cross section which will be presented in the above case.

Kindly advise Mr. Daniel S. Nutter.

Yours very truly,

HUMBLE OIL & REFINING COMPANY


J. W. HOUSE
DIVISION SUPERINTENDENT

RSD/rs
Attachment

DOCKET: EXAMINER HEARING AUGUST 22, 1956

New Mexico Oil Conservation Commission 10:00 a.m., Hobbs, New Mexico

Oil Conservation Commission Office, 1000 W. Broadway, Hobbs, New Mexico

The following cases will be heard before Daniel S. Nutter, Examiner:

CASE 1132:

Application of Stanley L. Jones for an unorthodox location and the assignment of an allowable for the Jones and Watkins Platt Well No. 1 in the Dayton Pool, Eddy County, New Mexico, in exception to Rule 104 (c) of the New Mexico Oil Conservation Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order granting an unorthodox location for the Jones and Watkins Platt Well No. 1 at a point 75 feet from the South line and 125 feet from the West line of Section 26, Township 18 South, Range 26 East, Eddy County, New Mexico, and further that said well be assigned an oil allowable. Said well was initially drilled prior to the promulgation of spacing and well location rules in the area and was later recompleted in the Dayton Pool.

CASE 1133:

Application of Ohio Oil Company for an order granting an unorthodox location and the assignment of a normal unit allowable for its proposed well in the Dean-Devonian Pool, Lea County, New Mexico, in exception to Paragraphs 3, 5 and 6 of the Special Rules and Regulations for the Dean-Devonian Pool as set forth in Order R-707. Applicant, in the above-styled cause, seeks an order authorizing an unorthodox location for its proposed well at a point 1650 feet from the North line and 330 feet from the East line of Section 34, Township 15 South, Range 36 East, Lea County, New Mexico. Applicant further seeks authorization of full allowable for said well notwithstanding its unorthodox location.

CASE 1134:

Application of Neville G. Penrose, Inc. for permission to dually complete its Hinton No. 10 Well in the Blinebry Oil Pool and the Tubb Gas Pool, Lea County, New Mexico, in exception to Rule 112-A (a) of the New Mexico Oil Conservation Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order permitting the dual completion of its Hinton No. 10 Well located in the NW/4 NW/4 of Section 13, Township 22 South, Range 37 East, Lea County, New Mexico. Applicant proposes to produce oil on top from the Blinebry Oil Pool, through the casing-tubing annulus and gas on the bottom from the Tubb Gas Pool through the tubing.

CASE 1135:

Application of The Texas Company for permission to dually complete its A. H. Blinebry (NCT-1) Well No. 3 in the Blinebry Oil Pool and the Tubb Gas Pool, Lea County, New Mexico, in exception to Rule 112-A (a) of the New Mexico Oil Conservation Commission Rules and Regulations. Applicant, in the above-styled cause, seeks an order permitting the dual completion of its A. H. Blinebry (NCT-1) Well No. 3 located in the SE/4 NW/4 of Section 29, Township 22 South, Range 37 East, Lea County, New Mexico. Applicant proposes to produce oil on top from the Blinebry Oil Pool and gas on the bottom from the Tubb Gas Pool by means of parallel strings of tubing.

CASE 1136:

Application of Amerada Petroleum Corporation for permission to dually complete its Cagle "C" No. 1 Well as a gas-gas dual in the Jalmat Gas Pool and the Langlie-Mattix Pool, Lea County, New Mexico, in compliance with Rule 112-A (a) of the New Mexico Oil Conservation Commission Rules

and Regulations. Applicant, in the above-styled cause, seeks an order authorizing a gas-gas dual completion for its Cagle "C" No. 1 Well located 990 feet from the North and West lines of Section 3, Township 26 South, Range 37 East, Lea County, New Mexico; said well is to have gas production from the Yates and Upper Seven Rivers formations of the Jalmat Gas Pool and gas production from the Lower Seven Rivers formation of the Langlie-Mattix Pool. A small portion of the uppermost perforations in the lower gas pay falls within the vertical limits, of the Jalmat Gas Pool as well as the Langlie-Mattix Pool.

CASE 1137:

Application of Humble Oil and Refining Company for permission to convert its State "A" Well No. 2 into a salt water disposal well in the San Andres formation of the Hobbs Pool in accordance with New Mexico Oil Conservation Commission Statewide Rule 701. Applicant, in the above-styled cause, seeks an order granting permission to convert its previously abandoned State "A" Well No. 2 into a salt water disposal well; said well is located 330 feet from the South and East lines of Section 25, Township 18 South, Range 37 East, Lea County, New Mexico. Applicant proposes to inject salt water below the oil-water contact of the San Andres formation in the Hobbs Pool.

*cont to Sept 26, ex
bearing down at Hobbs*

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
HOBBS, NEW MEXICO

CASE NO. 1137

TRANSCRIPT OF HEARING

SEPTEMBER 26, 1956

DEARNLEY-MEIER AND ASSOCIATES
COURT REPORTERS
605 SIMMS BUILDING
TELEPHONE 3-6691
ALBUQUERQUE, NEW MEXICO

STATE OF NEW MEXICO
 NEW MEXICO OIL CONSERVATION COMMISSION
 HOBBS, NEW MEXICO
 SEPTEMBER 26, 1956

IN THE MATTER OF:

CASE NO. 1137: CONTINUED CASE

Application of Humble Oil and Refining Company:
 for permission to convert its State "A" Well
 No. 2 into a salt water disposal well in the
 San Andres formation of the Hobbs Pool in ac-
 cordance with New Mexico Oil Conservation Com-
 mission Statewide Rule 701. Applicant, in the
 above-styled cause, seeks an order granting
 permission to convert its previously abandoned
 State "A" Well No. 2 into a salt water dis-
 posal well; said well is located 330 feet from
 the South and West lines of Section 25, Town-
 ship 13 South, Range 37 West, Lea County, New
 Mexico. Applicant proposes to inject salt
 water below the oil-water contact of the San
 Andres formation in the Hobbs Pool.

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF PROCEEDINGS

MR. CHRISTY: S. E. Christy, for the Applicant?

(Witness sworn.)

R. S. DEWEY,

called as a witness, having been first duly sworn, testified as fol-
 lows:

DIRECT EXAMINATION

BY MR. CHRISTY:

Q Mr. Dewey, I believe you have been sworn?

A Yes, sir.

Q State your name, address, occupation.

A E. S. Dewey, Division Petroleum Engineer, Humble Oil and Refining Company, Midland, Texas.

Q I believe you filed an application for salt water injection on the State "A" No. 2 Well in the SE-SE of 25, 18 South, 37 East, Lea County, Hobbs Field?

A That's right.

Q Would you please explain, briefly, the reason the application was made and the proposed plan of operation if the application is granted?

A Due to the desire of Humble Oil and Refining Company to expedite the disposal of produced salt water into some formation rather than allowing it to evaporate or seep into the ground, Humble Oil and Refining Company is seeking this application to dispose of produced salt water.

Q In connection with the log required by Rule 701 of the conservation rules, I believe you have had prepared a cross section map which is attached to your application, is that correct, sir?

A It wasn't attached to the original application.

Q Was not?

A No, sir, but --

Q You have had such a cross section prepared?

A Since that time.

Q Yes, sir. Would you please explain briefly the meaning of the cross section map and what you were attempting to determine from it?

A This cross section was prepared by one of the geologists for

Humble Oil and Refining Company, using logs that were available to him in the immediate vicinity of the Humble State "A" 2 Well, Hobbs Pool. The logs are gamma ray logs, and he was able to find but three gamma ray logs that had penetrated sufficiently deep into the San Andres formation to use in estimating possible zone of permeability below the oil and water production currently being produced from the Hobbs Pool.

Q This map is prepared from the best information you had available?

A It was, yes.

Q Now, referring, again, to the State "A" No. 2 Well, what is the old depth of the well and the formation involved?

A This well was completed and placed on production December 1, 1930. Seven inch casing was set and cemented with 380 sacks of cement at 4110 feet. The well was drilled originally to 4230 feet and later deepened to 4250 feet. In January 1947, the well was plugged and abandoned due to having gone to 100 percent water. In the plugging operations, the open hole below the seven-inch casing seat was filled with cement, a 50-sack casing plug was set in the seven-inch casing at 3439 feet and the seven-inch casing was shot off at 2400 feet. The well was plugged with 50 sacks cement from 2275 to 2400 feet. The 4-5/8-inch intermediate casing was shot at 600 feet. The well was plugged at 650 feet and at 200 feet with 50 sacks of cement. Twenty-five sacks of cement was used to plug the well at the surface.

Q Now, have you made an investigation concerning the probable water level in the Hobbs Pool, in addition to the log?

A As a matter of fact, the only investigation for additional permeable sections underlying the Hobbs Pool consists of geological work on this cross-section.

Q I believe the New Mexico School of Mines has made a report concerning that oil-water table level in there, is that correct?

A That's correct. In discussing the Hobbs Pool on Page 226, of New Mexico School of Mines Bulletin No. 18, it is stated that "The original water level in the reservoir, between 617 and 619 feet below sea level, was uniform in all porous zones". Using a well elevation of 3658 and 619 below sea level, it is estimated that the original oil-water contact in Humble Oil & Refining Company's State A-2 well was at a depth of 4277 feet. As the original total depth of State A-2 was 4230 feet, the bottom of the water table connected to the Hobbs Pool at this location was not determined.

Q And has not yet been determined?

A No, it has not, the well has never been deepened to that depth.

Q Will you tell the Commission briefly your proposed plans as to casing and pipe, et cetera, on the injection drilling, that you plan if this application is allowed?

A In the event permission is obtained from the New Mexico Oil Conservation Commission, Humble intends to drill out the cement plugs in their New Mexico State A-2 well and deepen the well below the oil-water contact in search of a lower zone of permeability which may be used for water disposal. Either a combination string

of 5 and 5-1/2-inch casing or a full string of 5-inch will be set on bottom and gun perforated opposite the permeable zone used for water disposal. In either event, the casing below the 7-inch casing seat will be 5-inch flush joint casing to afford as large an annular space as possible in the 5-1/4-inch open hole. This string of casing will be cemented to the surface in two stages to protect the upper formations from water intrusion. As the well is deepened, the formations will be tested to determine a zone or zones of permeability suitable for water disposal. This testing will consist of coring or drill stem testing or a combination of the two. It may be necessary to acidize or sand frac the zone or zones of permeability selected for water disposal.

Q Now, sir, where is the source of the water you propose to inject in the well?

A The water that we propose to inject in the well is water that is gathered at the various tank batteries located belonging to Humble Oil and Refining Company, and it is water that is produced to -- incident with the production of oil from the Hobbs Pool.

Q What is Humble's present estimate as to the amount of injection water daily?

A Our estimate of the proposed water from just Humble property is approximately 150 barrels per day.

Q Now, I believe I asked you, and in the possibility of repeating myself, the formation of production I believe you said is the San Andres?

A Yes, sir, the well was completed and produced from the San Andres.

Q Now, in connection with your application, I believe you gave notice to a number of offset leasehold and operator owners in the area by letter of August 6, a copy of which has been furnished to the Commission, is that correct, sir?

A I don't know as the Commission has been furnished a copy of the letter of August 6, but I can read that letter of August 6, if you care to have me.

Q Would you just briefly give us the names of the correspondents to which it was addressed?

A Amerada Petroleum Corporation, San Ma, Texas Company, Shell Oil Company, Ohio, Sunray Midcontinent, Gulf Oil Corporation, Stanolind Oil and Gas Company, Anderson Prichard Oil, Tide Water Associated Oil Company.

Q To the best of your knowledge, are those all of the offset operators and leasehold owners within one half mile of the State "A" No. 2 Well involved?

A That is my understanding.

Q Now, sir, would you read the letter?

A Letter dated August 6, 1956, and was addressed to the above companies, "By the attached copies of Humble Oil and Refining Company's letter of August 3, 1956, --" which, parenthetically, was our application to the Commission," -- notice is given to the offset leaseholders of Humble Oil and Refining Company's application for

an order granting permission to convert their State "A" No. 2 Well, Hobbs Pool, into a salt water disposal well."

Q Now, that letter was mailed to each of those companies at the address shown under your supervision on August 6?

A Yes, sir.

Q And have any of the letters been returned?

A We have had no response.

Q Now, one last question, in connection with this proposed casing operation, and drilling, assuming that it is done in a workmanlike manner, should it prevent leakage of the salt water into potential producing horizons that you pass by?

A The reason for using 5-inch flush joint casing through the open hole section below the 7-inch casing and inside the 6 and a quarter inch hole which will be drilled, was to afford as much room as possible in the annular space to obtain a good cement seal. It is impossible, or almost, to test a cement job under these circumstances where, to know definitely that the cement job is effective and segregating two formations. However, where it is anticipated that suitable porous zone, permeable zone may be at considerable depth below the current productive oil and gas productive interval in the San Andres, this depth will afford additional insurance that somewhere between that depth and the bottom of the productive permeability in the Hobbs Field that a cement field may be obtained.

Q Now, if the application is granted, Tumble will file its notice of intention to commence its injection and include it and

file its monthly reports as required by the Commission?

A That is correct.

Q Now, in your application, Humble has asked for an alternative order to be allowed to inject the salt water either immediately below the oil-water table in the water zone of the Hobbs Pool, or below that depth, is that correct, sir?

A That is correct.

Q Why is that?

A As may be noted by the Exhibit on the cross section, the distance between the various wells used in this cross section was from one and a half to three miles, and the gamma ray electric logs were rather poor. For this reason, the tops on the Grayburg, San Andres, Lovington sand and the possible water zone, are somewhat hard for the geologist to identify with assurance, and the section that was shown below the Lovington sand lacks a very clear definition and was rather difficult, for that reason to forecast ahead of time whether a permeable zone may be obtained at a reasonable depth below the Hobbs Pool in which to use for water disposal.

Q In either event, the zone of permeability now supplying the water to the Hobbs Pool below the water-oil contact would be the shallowest point of injection?

A That's correct. And if it were used, the water would be disposed of towards the base of that permeability supplying the Hobbs Pool with water currently.

Q Has this operation you are asking the Commission for permission

for been requested by you or any other State agency?

A The State Water Board and State Engineer in New Mexico have asked the cooperation of the New Mexico Oil and Gas Conservation Commission to obtain, through the operators, a voluntary water disposal program in the southeastern County, Hobbs has been mentioned as one of the more critical areas in which water needs to be disposed into some formation, and it is in response to, and in compliance with, the desire and wishes of the State Engineer, and I believe also the New Mexico Oil Conservation Commission, that Humble is taking this action.

MR. CHRISTY: I think that is all. For the record, there are no other operators involved in this salt injection project, and, of course, Humble's address is Houston 1, Texas.

A I would like to add one thing, that at completion of the State "A" 2 as a water disposal well, Humble will install a salt water disposal system to eliminate the use for surface pits. In the event any other operator or operators in the Hobbs Pool desires to use the salt water gathering system and State "A" 2 water disposal well, Humble is ready and willing to negotiate with them looking toward a cooperative water disposal project.

MR. NUTTER: Does anyone have any questions of the witness?

QUESTIONS BY MR. COOLEY:

Q Mr. Dewey, is it your professional opinion that the casing system and methods used in completing this water disposal system adequately protect all horizons productive of oil and gas and fresh

water?

A You can't assure that because even if we run into a cementing failure that it is hard to account for. I think it has a very reasonable chance of preventing any migration of water from the point at which we intend to inject the water into all other zones. Of course, the only zone which seems to be threatened at all might be the zone that is now productive of oil and water in Hobbs Pool, that is the lower zone.

Q There would be no danger at all in your opinion to fresh water?

A I think at this depth and due to the fact that the casing will be cemented to the surface, that all the potable water zones will be adequately protected.

MR. COOLEY: That is all.

QUESTIONS BY MR. NUTTER:

Q This injection zone is well below the fresh water zones, isn't it, Mr. Dewey?

A Yes, it's way below, I think it's in a formation that the Board of Water Engineers has approved for injection purposes. I think they consider the injection into this zone to be so far below the potable waters that it would be safe to inject there.

Q So the only possibility of contamination would be through leakage through the pipe --

A Leakage through --

Q -- or the cement job?

A Yes, sir.

Q But you plan to use now five and a half inch, or five inch

flush joints.

A It would be flush with the wall through the open hole. After we get up into the seven inch and larger size holes, there would be more room to cement the casing.

Q And it would be cemented to the surface?

A It would be cemented to the surface, it might require two to do that, but we will cement it back.

Q Now, the water-oil contact that you have depicted on this Exhibit is at 4,277; I presume that is the water-oil contact as determined in the School of Mines Bulletin 18?

A Yes, sir, that is where that oil-water contact was determined.

Q Is it your personal opinion that the oil-water contact has risen?

A Oh, yes, very definitely so in this particular well, because the well was flooded out and abandoned due to the water table having come up in this individual well. It flooded out the oil productive section in the well.

MR. NUTTER: Does anyone else have a question of the witness? If not, --

QUESTIONS BY MR. BREIDER:

Q Do you plan to use the casing for injection, or are you going to tube it?

A We haven't discussed that matter, but I could see no reason to use the casing. It depends, I think, somewhat on the volume of water that eventually might be disposed of in this well and the

difficulty we might have in laying to form it into the permeability. Now, the permeability is entirely an unknown factor and it may require pump pressure to put it in, and on the other hand, it might go in under a vacuum; if it went in under a vacuum, I could see no reason to use tubing, no advantage to it.

Q But you would consider it if necessary?

A If necessary, we would, yes, and a packer. Of course, that would restrict the volume of water that might be disposed of.

MR. NUTTER: Does anyone else have any questions of Mr. Dewey? If not, he may be excused.

MR. CHRISTY: Humble would like to offer into evidence the cross section map which Mr. Dewey has testified to. Mr. Dewey, do you have another copy of that letter:

A No, we can just leave that.

MR. CHRISTY: And we would like to also offer into evidence a copy of the letter of August 6 to the offsetting leasehold owners.

MR. NUTTER: Does anyone else have a statement they wish to make in this case? We have a telegram from Stanolind Oil and Gas Company which I will read into the record. It's addressed from Roswell, New Mexico, dated September 24, at 12:07 P.M. addressed to the New Mexico Oil Conservation Commission, Santa Fe, New Mexico. "THE APPLICATION OF HUMBLE OIL AND REFINING COMPANY OF CASE 1137 TO DISPOSE OF PRODUCED SALT WATER AND TO THE OIL WATER CONTACT OF THE SAN ANDRES IN THE COBES POOL IS IN ACCORDANCE WITH THE POLICY OF THE OPERATORS IN THOSE FIELDS WHERE THE SALT WATER DISPOSED IN PRODUCED


BEING AS SUBMITTED A POLITICAL MATTER. THE COURT HAS THE UNDERSTANDING OF A HUBBLE OIL AND GAS COMPANY THAT IT IS TO ORDER THE COURT TO A COURT IN DISPOSE OF THE CASE AND THE STUDIED FOR THE HUBBLE OIL, OR DISPOSE OF THE CASE IN DISPOSE OF THE CASE NECESSITY ARISES. STANOLIND OIL AND GAS COMPANY THEREFORE RESPECTFULLY URGES THE APPROVAL OF HUBBLE'S APPLICATION IN CASE 1137. IT IS REQUESTED THIS TELEGRAM BE READ INTO THE RECORD IN CASE 1137. IF there is no further statement or evidence to be offered in this case, we will accept Hubble's Exhibits Nos. 1 and 2 and take the case under advisement.

(Witness excused.)

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I, THURMAN J. MOODY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me in Stenotype and reduced to typewritten transcript by me and/or under my personal supervision; that same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal, this, the 19th day of October, 1956, in the City of Albuquerque, County of Bernalillo, State of New Mexico.


Notary Public

My Commission Expires:
April 3, 1960.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 1137
Order No. R-909

APPLICATION OF HUMBLE OIL AND REFINING
COMPANY FOR AN ORDER GRANTING PERMISSION
TO CONVERT ITS STATE "A" WELL NO. 2,
LOCATED IN THE SE/4 SE/4 SECTION 25,
TOWNSHIP 18 SOUTH, RANGE 37 EAST, NMPM,
INTO A SALT WATER DISPOSAL WELL IN THE
SAN ANDRES FORMATION OF THE HOBBS POOL,
LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 10:00 o'clock a.m. on August 22, 1956, and again at 9:00 o'clock a.m. on September 26, 1956, at Hobbs, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 7th day of November, 1956, the Commission, a quorum being present, having considered the application, the evidence adduced, the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due notice of the time and place of hearing and the purpose thereof having been given as required by law, the Commission has jurisdiction of this case and the subject matter thereof.

(2) That the applicant is the owner of a plugged and abandoned oil well in the Hobbs Pool known as its State "A" Well No. 2, located 330 feet from the South line and 330 feet from the East line of Section 25, Township 18 South, Range 37 East, NMPM, Lea County, New Mexico.

(3) That applicant proposes to re-enter its State "A" Well No. 2, deepen it to a total depth of 4,350 feet, run a full string of new casing to the total depth, cement the same to the surface, and perforate the lower portion of the casing to permit the injection of salt water below the oil-water contact in the San Andres formation of the Hobbs Pool.

(4) That the applicant's proposed salt water injection program will not jeopardize the production of oil, gas, or fresh water in the area.

(5) That the applicant's proposed salt water injection program is consonant with sound conservation practices.

IT IS THEREFORE ORDERED:

(1) That the applicant be and the same is hereby authorized to re-enter its State "A" Well No. 2, located 330 feet from the South line and 330 feet from the West line of Section 25, Township 18 South, Range 37 East, NMPM, Hobbs Pool, Lea County, New Mexico, to deepen said well to a total depth of 4,350 feet. Provided a full string of new casing is set to the total depth of the well with cement circulated to the surface, the applicant is further authorized to perforate the lower portion of the said casing and inject salt water through said perforations into the San Andres formation of the Hobbs Pool, provided the point of injection is well below the oil-water contact level of said San Andres formation.

(2) That applicant shall submit monthly reports of its disposal operation in accordance with Rules 704 and 1119 of the Commission Rules and Regulations.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

John F. Simms

JOHN F. SIMMS, Chairman

E. S. Walker

E. S. WALKER, Member

A. L. Porter, Jr.

A. L. PORTER, Jr., Member & Secretary

